

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-11 (Canceled).

Claim 12 (New): A method for operating a piezoelectric motor having a stator in a form of a hollow-cylindrical oscillator, at least one front side of which has frictional contact with a rotor and which includes standing wave generators, the method comprising:

setting the hollow cylinder into a coupled tangential-axial oscillation mode so that tangential and axial oscillatory speed components of the standing wave thus formed in the oscillator or, respectively, points of the cylinder have a same phase or a phase difference of 180° ;

forming oscillatory speed maximums of the tangential component on the front sides of the hollow cylinder and those of an axial component underneath thereof, wherein, towards a center of the cylinder height, parallel to the front sides of the cylinder, a nodal line is formed on which the axial oscillatory speed component adopts the value zero and the tangential component adopts a minimum, and wherein further axially extending nodal lines are formed in the hollow-cylindrical body in dependence on the mode order on which the axial or tangential oscillatory speed components adopt zero values.

Claim 13 (New): A method according to claim 12, wherein the standing wave generators are excited with a frequency that corresponds to the oscillator resonance frequency and at which a standing wave of the coupled tangential-axial oscillation mode is formed.

Claim 14 (New): A piezoelectric motor having a stator in a form of a hollow-cylindrical oscillator, at least one front side of which has frictional contact with a rotor, comprising:

standing wave generators configured to generate coupled tangential-axial oscillations in the hollow-cylindrical oscillator, wherein tangential and oscillatory speed components have a same phase position or a phase difference of 180° , the tangential oscillatory speed maximums are located on the front sides and the axial oscillatory speed maximums underneath the front sides, and wherein the same decrease towards half a height of the hollow cylinder so that kinetic drive energy for a rotor is concentrated in proximity of the front sides of the hollow cylinder, and wherein further a mechanical attachment for the motor is arranged or provided in the central portion on the zero line of the values of the components.

Claim 15 (New): A piezoelectric motor according to claim 14, wherein the hollow-cylindrical oscillator comprises a monolithic piezoelectric body on a first surface area of which one or more electrodes are provided and on a second surface area of which a common reference electrode is provided, both forming generators of standing waves together with piezoelectric ceramic disposed therebetween.

Claim 16 (New): A piezoelectric motor according to claim 14, wherein the hollow-cylindrical oscillator comprises a monolithic non-piezoelectric body, wherein the generators are constructed as piezoelectric elements rigidly connected to the hollow cylinder with corresponding electrodes.

Claim 17 (New): A piezoelectric motor according to claim 14, wherein the oscillator comprises two standing wave generators spatially displaced by one fourth of the wavelength,

electrical excitation of which has a phase quadrature by which a traveling wave is generated in the oscillator and the rotor has a moving direction opposite to the traveling wave.

Claim 18 (New): A piezoelectric motor according to claim 14, wherein the oscillator comprises three standing wave generators spatially displaced by one third of the wavelength, electrical excitation of which has a phase displacement by 120° by which a traveling wave is generated in the oscillator and the rotor has a moving direction opposite to the traveling wave.

Claim 19 (New): A piezoelectric motor according to claim 14, wherein the oscillator comprises at least one group of like generators of acoustic standing waves displaced against each other by half a wavelength and connected to an electrical exciting source, wherein the oscillator height is selected such that a longitudinal mode is excited simultaneously with the tangential-axial mode, wherein superposition of both modes causes points located on the front sides of the hollow cylinder to perform elliptical or straight movements.

Claim 20 (New): A piezoelectric motor according to claim 14, wherein the hollow-cylindrical oscillator body has a conical shape on front insides thereof so as to guide and mount the rotor in a self-centering manner, which has a counter-conically shaped section at its respective ends.

Claim 21 (New): A piezoelectric motor according to claim 14, wherein the standing wave generators are excited with a frequency that corresponds to the oscillator resonance frequency and at which a standing wave of the coupled tangential-axial oscillation mode is formed.

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Claim 22 (New): A piezoelectric motor according to claim 14, wherein a mechanical attachment for the stator is arranged or provided in the central portion of the hollow cylinder on the nodal line extending parallel to the front sides.